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An Essay
on
Bilious Fever. by
William Collins
of
Delaware

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Considering the extensive prevalence, the variety of causes by which it may be produced, and the mortality, occasioned by its neglect or improper treatment Bilious Fever, become one of the most interesting and important diseases, to which the attention of the practitioner is attracted.

It prevails most extensively in the southern and middle sections of the United States, though no part of it is entirely exempt, and within few years it has extended itself throughout thier whole extent.

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It generally makes its appearance about the middle of Summer, and continues increasing untill ~~about~~ the middle of Autumn, When it begins to decline untill its progress is almost entirely checked by the first of Winter; it prevails to a greater extent when Weather which has been hot and dry is succeeded by heavy and long continued rains.

This Disease is considerably influenced by the constitution of the patient, by climate, ~~the~~ and the Season in which it occurs; in the robust and plethoric, it is exceedingly violent and inflamatory, demanding the most prompt and vigorous depletion; in the weak and relaxed it is less violent; and in the intemperate and dissipated it assumes a low Typhoid character.

When it occurs early in the season it is less violent than in the more advanced period of it.

The remote cause of Bilious Fever is I believe generally admitted to be Marsh Miasmata, but of thier precise Nature or Modus operandi we have nothing certain, every person who has written on the subject adopting views peculiar to himself, and rejecting as foolish or visionary what had been advanced before. but whatever may be thier nature of thier manner of introduction into the system of this we are certain, that thier first impression, is made on the Stomach and through the medium of that organ, the rest of the system become affected.

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citing causes. however we have more certainty, they are vicissitudes of the atther, irregularities in diet or drink, exposure to night air, loss of sleep, excessive venery, anxiety of mind, fasting, or in fact what ever either directly or indirectly debilitates the system.

The symptoms which indicate an attack of Bilious Fever are. languor, anxiety, heaviness, and listlessnes; these continuing for a short time, the patient is attacked by severe rigors which are succeeded by a high fever, he now complains of severe pain in his head, back, and extremities, his skin becomes hot and dry, he complains of great thirst, his tongues is covered with a dark brown fur, his pulse becomes full, hard, and quick, he has a sensation of severe pain and heat, in the region of the Stomach,

heaviness and a bursting of bilious matter succeeds he then becomes yellow, and delirium to some extent.
At this period a remission of these symptoms generally take place, and the patient flatters himself that his indisposition will only be temporary; but in this he is deceived, for in the course of twenty four hours all the symptoms return with increased violence.
In this manner the disease proceeds day after day untill it is either arrested by our remedies or terminates fatally.

Such is the course bilious fever pursues and the character it assumes: but frequently it associates itself with other diseases, making the diagnosis more obscure, and the treatment more difficult, and indeed there is scarcely

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a disease that occurs in the district in which I reside, that this form of fever does not accompany.

When the pulse becomes soft, slow, and regular, the tongue clean, the skin moist and cool, the alvine discharges natural in colour, odour, and consistence, the urine turbid and depositing a sediment, the functions of the mind continue undisturbed, and particularly when in the advanced stage of the disease the patient picks his nose or complains of thirsty, we may calculate almost with certainty on a favourable termination of the disease.

But if on the contrary, the skin should continue hot & dry, the tounge foul and parched, the countenance flushed, they eye wild. if there should be much delirium or coma, impa-

tience of light and sound, and particularly in the advanced stage of the disease if delirium tremens and stupefaction should appear and the patient takes no notice of his family or friends and seems altogether unconcerned as to the event of his disease the result will almost certainly be fatal.

Examination post mortem shew considerable inflammation of the internal coat of the stomach and intestines, the liver and spleen are also found in a state of inflammation and congestion, and in the brain marks of inflammation are frequently found particularly when there has been the cause of the disease some determination to that organ.

The indications in the treatment of Bilious Fever are twofold. first to moderate the violence of reaction. Secondly to restore tone to the system.

The remedies to be employed in answer in the first indication are those which directly depletes the system, and of this class the Lancet is perhaps the most important; but it should be prescribed with great caution, particularly in persons of a delicate constitution, and where the disease occurs late in the season. In cases however of a vigorous constitution, where there is much determination to the head, redness of face and fullness of the arterial system, the skin hot and dry, and other symptoms of inflammation; Bloodletting may be prescribed with great advantage and the operation repeated as often as the circumstances of the case will justify

Next in importance and perhaps equal utility in the treatment of this complaint in Infancy, they should never be omitted unless they are contrain

dicated by the existence of a Hernia, some peculiarity in the constitution of the patient, or by Pregnancy. This operation not only merely by evacuating the Stomach, but their determine to the surface, relieve the pain in the head, appease nausea, and equalize the circulation.

The best article of this class of remedies is the Antimonium Tartarisatum, and to be effectual it should be frequently repeated, it may be given in doses of one, two or three grains dissolved in water, every ten or fifteen minutes until the effect is produced; and its operation may be greatly assisted by warm the diluent drinks.

In case where active vomiting does not seem so necessary, a combination of Emetic Tartar and Cheese

manna in the proportion of one to ten grains of the former to fifteen of the latter answers very well.

The diseases which sufficiently evacuated by the medicines of Gentes we must now direct our attention to the state of the alimentary canal, which will generally be found in a state of constipation, from its inactivity there are discharges of considerable quantities of dark fetid matter. in either of these cases purgatives are equally demanded as they prevent the accumulation or carry away large collections of matter which are productive of great irritation, and without the removal of which the cure would be greatly retarded.

To effect this purpose Calomel is perhaps to be preferred, it may be given either alone or in combination, with

Jalap. Gamboge. Scammony or some article of the class less tardy in its operation, one of the best combination of it is with Gamboge in the proportion of fifteen grains of Calomel to two or three of Gamboge; it is better to give the Calomel in large doses as it will be found to operate more speedily and especially, to agree better with the stomach, and to produce less tormina than when administered in smaller doses.

As the Stomach at this stage of the disease is sometimes so irritable that Cathartics will not remain on it, we must have recourse to Enemata and an excellent one is prepared by dissolving an ounce of the Sulphate of Soda in a pint of a strong decoction of Sen or leaves; this may be repeated at intervals of half an hour untill

until the effect is produced.

At this stage of the disease the stomach is so exceedingly irritable as to call for particular treatment; and to relieve this most distressing symptom a great variety of remedies have been suggested, the best of which I believe are, Lime Water, and Milk. a Decoction of Mint. Carbonic acid gas, this may be given in the form of the Effervescing Draught, it and the common Ginger Water; the application of a sinapism or Blister to the region of the Stomach likewise answers an excellent purpose. bathing the feet in Warm Water containing common Salt or Cayenne Pepper will frequently succeed when all others have failed, but what answers better than any I have mentioned particularly when it occurs late in the disease, is an opium Pill which has been made

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a considerable length of time. an Enema containing fifty or sixty drops of the Tincture of opium or a suppository of opium itself will also frequently succeed.

The alimentary canal being now sufficiently evacuated, and the Stomach being perfectly calm, recourse may be had to the Neutral Salts with great advantage; administered in small doses and repeated at intervals of one or two hours as the case may require, they constitute a very important part in the treatment of this disease: while they keep the bowel gently open they seem also to possess very considerable refrigerant powers: The Sulphates of Soda and Magnesia are believed superior to any of their kindred preparations; and their powers may be considerably increased by the addition

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of the Emetic tartar. an excellent formula is as follows.

℞. Sulphas Magnesiæ	℥i
Tartris Antimonii	gr i
Succus Limonis	℥i
Aqua	℥iv

The dose of this mixture is a table spoonfull every two or three hours.

Great advantage may also be derived from the use of some of the refrigerants and particularly of the Nitrate of potash; the powers of the article are also very much increased by the addition of others, as Calomel and Emetic Tartar; in the following proportions they constitute a very excellent prescription.

℞. Nitrate of Potash	℥i
Calomel	gr Xy a XVI
Emetic Tartar	gr i

This is to be divided into eight or ten powders one of which is to be given every two or three hours

The disease or Febrile-action brought near disease is used here in the utility.

The system being now completely reduced by the exhaustion of the foregoing remedies, diaphoretics may be had recourse to with the most beneficial results. of all the modes of treating fever, sweating is perhaps of the earliest date, and the most popular; but we should be very cautious in their administration; they should never be prescribed while there is much arterial excitement, nor while the patient is under a cathartic course of medicine. We should never attempt to force a perspiration, but should always use the gentlest means. The antimonial prep

asations are decidedly superior to all the articles of this kind and of these the Emetic Tartar ought always to be preferred, minute in its dose, devoid of Causticity and almost of taste it is particularly applicable to the case of children and petulant adults.

As regards the precise modus operandi of this article, however there is a great variety of opinion, by Dr Cullen it is asserted that unless it produces nausea or vomiting it is of little service, by Fordyce this is denied and he declares that in proportion as nausea is produced its diaphoretic power is diminished.

Determined to satisfy myself with regard to this matter, I made a number of experiments with the article under circumstances as near

individual is injurious; the result of which confirms the opinion that the diaphoretic effects of the antimonial preparations do not depend on the degree of nausea they produce.

The Emetic Tartar may either be given alone or in combination with Calomel and the Nitrate of Potash in the proportions above mentioned; it should be given in small doses at first and these should be carried to the greatest possible extent without exciting nausea: an excellent mode of administering it is in combination with the Spirits of Nitre, in the proportion of twenty or thirty drops of the wine of Antimony to one drachm of the Nitre.

At this period the Dovers Powder given in doses of ten grains and repeated every three or four hours will also be found highly serviceable,

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The operation of the diaphoretic medicines is greatly facilitated by the application of Warmth to the surface, and the most convenient mode of administering this remedy is in the form of Vapour — and here too Blisters applied to the extremities are of the highest utility, they assist the operation of the diaphoretic remedies, cause irritation and relieve determination to the head; but it is only to the more advanced stages of Fever that blisters are applicable; if administered early they will uniformly be found to aggravate all the Symptoms,

All our Remedies failing we must now have recourse to Mercury and here it should be given so as to excite a salivation; to produce this effect it should be administered in

small dose combined with opium or some astringent (to prevent it from running off by the bowels) and repeated at short intervals, it may also be applied by friction to the surface in the form of an ointment. a Salivation in this disease is one of the most important remedies as it rarely fails to effect a cure if it can be induced.

The disease now being completely subdued our next object should be to restore tone to the System; and this can be effected by the administration of tonics. and of these the Peruvian Bark is the best, it may either be, given alone in powder or infusion combined with one of the aromatics. as orange peel, cinnamon, cloves, &c. an excellent combination of this article is with the carbonate of Potash or Soda and the

Serpentaria in the following proportions

℞ - Peruvian Bark ℥ß
Pulv Serpentaria ℥j
Carbonate of Soda ℥ß

This should be divided into four powders and given at interval of three or four hours.

For this purpose Quassia Gentian and Colombo; will also be found to answer exceedingly well.

The Mineral Acid particularly the nitric and muriatic are of great utility especialy where there are visceral obstructions.

As there is great liability to a relapse in Bilious Fever patients who have suffered an attack should be particularly carefull in avoiding exposure to the causes which produced it. they should be clothed in Flannel. thier diet

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light and nutritious - their exercise moderate and taken in the middle of the day, but above all they should not fatigue themselves or commit excesses of any kind.

By steadily pursuing the course above recomended we shall rarely be disapointed in effecting a speedy and effectual cure,

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